

Headquarters U.S. Air Force

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14395 - Acquisition Documentation Streamlining, the SEP, and the PESHE



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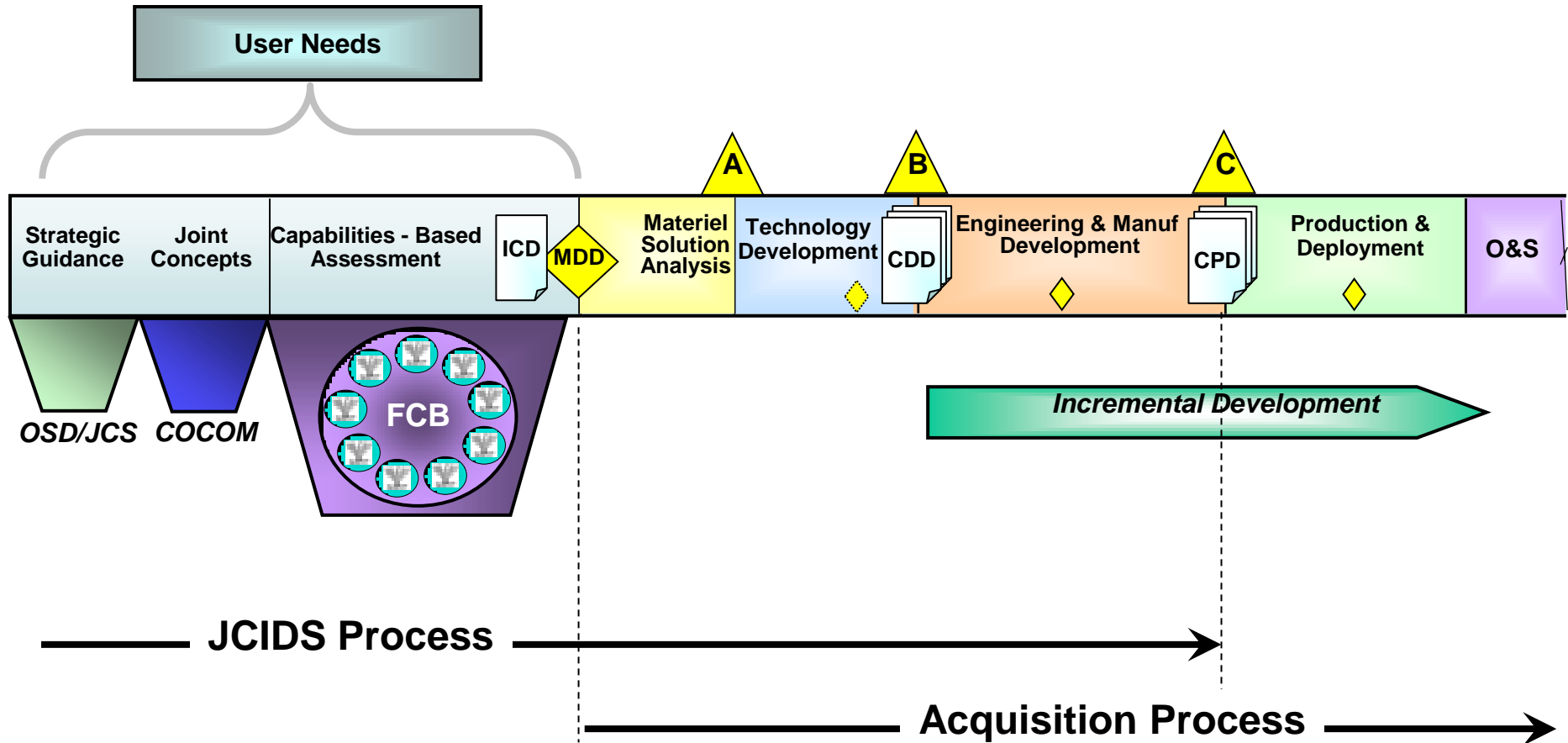
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DoD Acquisition Framework





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Bottom Line Up Front

- **Resource constrained environment drives requirements to eliminate non-value added activities and documentation**
- **20 April 2011 DoD Memo a potential game changer for Environment, Safety, and Occupational Health (ESOH) communities**
- **Documentation Streamlining efforts offer ESOH communities opportunities to**
 - **More effectively integrate ESOH considerations into the Systems Engineering process**
 - **Move ESOH planning earlier in Acquisition process, pre-Milestone (MS)-A**
 - **Focus ESOH efforts on outcomes, not planning**
- **Its all about the data**

"In God We Trust, All Others Bring Data"

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Summary

- **AT&L streamlined Acquisition documentation to improve efficiency**
- **20 Apr 2011 AT&L memo on streamlining the Systems Engineering Plan (SEP) impacts the Programmatic Environment, Safety, and Occupational Health Evaluation (PESHE)**
 - **PESHE summary removed from Acquisition Strategy (AS)**
 - **PESHE now SEP attachment at Milestone (MS)-B and MS-C**
 - **Environment, Safety, and Occupational Health (ESOH) design considerations summarized in SEP Table 4.6-1**
- **ODUSD(I&E) leading development of common implementation guidance for DAG; Services to promulgate to their Program Offices**
 - **Support streamlining initiative and minimize adverse impacts**
 - **Attempting to maximize opportunity to improve former status quo**



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Streamlining the SEP and PESHE

- **20 Apr 2011 SEP Streamlining Memo**
- **Strengths, Weaknesses, Opportunities**
- **Recommendations**



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20 Apr 2011 SEP Streamlining Memo

- **AT&L Memorandum “Document Streamlining – Program Strategies and Systems Engineering Plan,” dated 20 Apr 2011**
- **Streamlined and rationalized documentation**
 - **“The Technology Development Strategy/Acquisition Strategy (TDS/AS) and Systems Engineering Plan (SEP) will be streamlined consistent with the attached annotated outlines.”**
 - **Life Cycle Sustainment Plan separated from the AS**
 - **PESHE summary and National Environmental Policy Act (NEPA) and Executive Order (EO) 12114 Compliance Schedule no longer in Acquisition Strategy (AS)**
 - **ESOH Design Considerations, PESHE, and NEPA/EO Compliance Schedule added to the SEP**



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20 Apr 2011 SEP Streamlining Memo

■ Delegated Approval Authority

- “Approval authority for the Corrosion Prevention Control Plan (formerly part of the AS), Programmatic ESOH Evaluation (PESHE), and Item Unique Identification (IUID) Implementation Plan, currently at OSD level for ACAT 1 programs, is delegated to the Component Acquisition Executive.”**
- “Consequently, while these documents are still required, they will no longer be submitted for OSD staff approval.”**
- “Design considerations related to each will be captured in the SEP. Program managers will provide 'hotlinks' in the SEP that will permit responsible staff the opportunity to monitor system compliance.”**



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20 Apr 2011 SEP Streamlining Memo

- Removed PESHE Summary and National Environmental Policy Act (NEPA) / EO Schedule from AS
- Included "**Environmental Safety** and Occupational Health (ESOH)" content in SEP Table 4.6-1 Design Considerations (Mandated)"
- Column 1: "Cognizant PMO Organization"— PMO IPTs/WGs responsible for ESOH
- Column 2: "Certification"-- Required ESOH certifications, e.g., WSERB
- Column 3: "Documentation (hot link)"-- Include PESHE and NEPA/EO Compliance Schedule at MS-B & MS-C as hot link or attachments



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20 Apr 2011 SEP Streamlining

- Included "**Environmental Safety** and Occupational Health (ESOH)" content in SEP Table 4.6-1 Design Considerations (Mandated)", continued
- Column 4: "Contractual Requirements (CDRL Number)"-- Include contract language requiring use of MIL-STD-882D and other ESOH requirements, possibly as attachment
- Column 5: "Description/Comments" – “Describe how design will minimize ESOH by summarizing how program will integrate ESOH considerations into the SE processes, to include method for tracking hazards and ESOH risks and mitigation plans throughout the life cycle of system.”

NOTE: MIL-STD-882E published on 11 May 2012



20 Apr 2011 SEP Streamlining

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Mapping Key Design Considerations into Contracts					
Name (Reference)	Cognizant PMO Org	Certification	Documentation (hot link)	Contractual Requirements (CDRL #)	Description/Comments
SE Tradeoff Analysis for Affordability			(MS B)		Provide the systems engineering trade-off analysis showing how cost varies as the major design parameters and time to complete are traded off against one another. The analysis will reflect attention to capability upgrades. The analysis will support MDA approval of an Affordability Requirement to be treated as a Key Performance Parameter (KPP) in the Acquisition Decision Memorandum. The analytical summary will include a graphic illustrating cost tradeoff curves or trade space around major affordability drivers (including KPPs when they are major cost drivers) to show how the program has established a cost-effective design point for those affordability drivers.
Corrosion Prevention and Control (ACAT I only)			CPCP (MS B & C)		Describe how design will minimize impact of corrosion and material deterioration on system throughout system life cycle.
Environmental Safety and Occupational Health (ESOH)			PESHE NEPA Compliance Schedule (MS B & C)		Describe how design will minimize ESOH by summarizing how program will integrate ESOH considerations into SE processes to include method for tracking hazards and ESOH risks and mitigation plans throughout the life cycle of system.
Human Systems Integration (HSI)					Summarize how HSI will be integrated within the SE processes, specifically addressing the human operator and maintainer requirement allocation approach that accounts for total system performance.
Item Unique Identification (IUID)			IUID Implementation Plan (MS B & C)		Describe how the program will implement IUID to identify and track applicable major end items, etc.
Manufacturing					Assess the manufacturing risk and readiness of all contributory processes and particularly those that are new or unproven in a full-rate production environment.

27



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Streamlining the SEP and PESHE

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Strengths

- **CAE designated as the PESHE Approval Authority, which increases PESHE visibility and importance for the Services**
- **PESHE attachment to the SEP, which improves access and visibility of the PESHE in the SE community**
- **OSD will now have access to the PESHE during SEP reviews at MS-B and MS-C**
 - **Before this policy change, OSD had to ask for PESHE when it had issues with PESHE summary in the AS**
- **New SEP format requires ESOH information at MS-A**

NOTE: This is the first time ESOH considerations required at any MS-A documentation



- **ESOH Design Considerations included in Table 4.6-1 of the SEP**
 - **MS-A SEP requires ESOH planning for the Technology Development Phase**
 - **Use Table structure to capture key ESOH elements**
 - **Integration into SE IPT / WG structure**
 - **Certifications**
 - **Contractual requirements**
 - **PESHE (ESOH hazards, risks, and mitigations measures) and NEPA/EO Compliance Schedule (at MS-B and MS-C)**
 - **Description of ESOH integration into SE processes and Hazard Tracking System throughout the life cycle**



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Strengths

- **Changes to SEP enable the ESOH communities to**
 - **Incorporate all the critical ESOH management planning information into the SEP at MS-A**
 - **Focus the PESHE on data – *its all about the data***
 - **Data enables reviewers to actually know how effectively planning being executed**
 - **Focus on the outcomes, not the document**
 - **More effectively integrate ESOH considerations into the Systems Engineering process**

**See the Poster Presentation
14423-Balancing ESOH and Corrosion Control Requirements Cr+6**



Weaknesses

- **Exacerbates confusion about meaning of "ESOH" acronym**
- **Table 4.6-1 structure and format limit "PESHE summary" information contained in main body of SEP**
- **Does not explicitly address whether or not CAE can delegate PESHE approval authority further down chain of command**
- **Fails to correct potential at MS-A for**
 - **NEPA/EO 12114 Compliance Schedule not having appropriate visibility with decision-makers as part of Defense Acquisition Board (DAB) reviews**
 - **Program Office not recognizing the need for NEPA/EO assessments to support the prototyping efforts between MS-A and MS-B**



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Opportunities

- **As one of the SEP reviewing offices, DUSD(I&E) should have greater access to PESHE and greater visibility into how Program Offices are addressing ESOH**
- **DUSD(I&E) and Services can work together through DoD Acquisition ESOH IPT to**
 - **Establish common ESOH implementation guidance for the 20 Apr 2011 AT&L SEP Memo**
 - **Address CAE delegation of PESHE approval authority**



- **Incorporate ESOH considerations into existing SEP Outline**
 - **Section 2.2 Technical Certifications – Include ESOH-related certifications in Table 2.2-1 Certification Requirements (e.g., Airworthiness, WSESRB, Laser Safety)**
 - **Section 3.3 Engineering and Integration Risk Management – Include ESOH risk management process IAW MIL-STD-882E**
 - **Section 3.4. Technical Organization – Include ESOH-related IPTs and WGs in Section 3.4.4, Table 3.4.4-1, and Table 3.4.4-2**
 - **Section 3.6 Technical Performance Measures (TPM) and Metrics – Include ESOH-related KPPs, KSAs, or other regulatory/policy driven requirements in Table 3.6-2 TPMs**
 - **Section 4.4 Technical Reviews – Include ESOH SMEs as PMO participants in Table 4.4-1 Technical Review Details.**



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Opportunities

- **Define what ESOH information is required in Table 4.6-1 at each Milestone in terms of**
 - **IPT /WG structure**
 - **Certifications**
 - **Documentation (PESHE and NEPA/EO Compliance Schedule)**
 - **Contractual requirements**
 - **Strategy for integrating ESOH into SE**
- **At MS-A utilize Table 4.6-1 to provide ESOH management information necessary to support**
 - **Technology Development (TD) Phase design development and the Preliminary Design Review (PDR)**
 - **NEPA/EO planning for TD phase (in Description/Comments and Certification blocks)**



- **Re-define PESHE to support AT&L Documentation Streamlining Initiatives and focus on Data versus documentation**
- **Capture the current PESHE ESOH management planning information in Table 4.6-1 of SEP**
- **Transition the PESHE to consist of only the following**
 - **ESOH Risk Matrix (if other than MIL-STD-882E)**
 - **ESOH Hazard Tracking System (usually a database)**
 - **Required hazardous materials information, to include wastes and pollutants (if separate from ESOH HTS)**
 - **NEPA/EO Compliance Schedule**
- **Standardize implementation across Services to support Joint programs and to focus Programs on content not format**



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Streamlining the SEP and PESHE

- 20 Apr 2011 SEP Streamlining Memo
- Strengths, Weaknesses, Opportunities
- Recommendations



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Recommendations

- **DoD Acquisition ESOH IPT develop consistent implementation guidance supporting the 20 Apr 2011 AT&L SEP Streamlining Memo for the DAG and each Service to promulgate that addresses**
 - **SEP ESOH content, especially at MS-A**
 - **Redefine PESHE to consist of ESOH data & NEPA/EO Compliance Schedule**
 - **Appropriate delegation of CAE approval of PESHE, consistent with the Service SEP approval authority**
- **Ensure each Service promulgates the IPT developed guidance**
- **Utilize the upcoming updates to DAG and DoDI 5000.02 to enhance and clarify**
- **Include the DoD Acquisition developed DAG guidance in the update to the SEP Preparation Guide**



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Recommendations – Define SEP Table 4.6-1 Content

- **Rule of thumb: Have to keep the ESOH row inputs as short as possible to avoid unwanted attention and opposition from DASD(SE) and ARA**
- **MS-A**
 - **"Cognizant PMO Organization:" Identify ESOH personnel integrated into the SE IPT / WG structure**
 - **"Certification:" List applicable environment, safety, and occupational health certifications, to include safety boards (e.g., WSERB) and NEPA/EO compliance prior to exposing environment to known ESOH hazards**
 - **"Documentation:" Attach draft NEPA/EO Compliance Schedule**



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Recommendations – Define SEP Table 4.6-1 Content

- **MS-A, continued**
 - **"Contractual Requirements:"** Include or attach language from RFP or actual Technology Development contract mandating use of MIL-STD-882E (**and any of the optional tasks**) and identifying any other ESOH requirements (e.g., ban on use of Ozone Depleting Substances or hexavalent chrome)
 - **"Description/Comments:"** Use 2-3 paragraphs to describe the strategy for integrating ESOH into SE processes and Hazard Tracking System during prototyping and design development leading to PDR and for development of the PESHE for MS-B

**See the Poster Presentations on Optional MIL-STD-882E Environmental Tasks
14408-Task 108 Hazardous Materials Management
14211 –Task 210 Environmental Hazard Analysis**



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Recommendations – Define SEP Table 4.6-1 Content

■ MS-B

- "Cognizant PMO Organization:" Update identified ESOH personnel integrated into the SE IPT / WG structure**
- "Certification:" Update list of applicable environment, safety, and occupational health certifications, to include safety boards (e.g., WSERB) and NEPA/EO 12114 compliance prior to exposing environment to known ESOH hazards during testing**
- "Documentation:" Attach PESHE, to include NEPA/EO 12114 Compliance Schedule, Hazard Tracking System, ESOH Risk Matrix, and required hazardous materials information (to include wastes and pollutants); avoid duplication of information about integration structure or strategy (described in other columns of ESOH row)**



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Recommendations – Define SEP Table 4.6-1 Content

■ MS-B, continued

- "Contractual Requirements:"** Include or attach language from current contracts and RFPs mandating use of MIL-STD-882E (with any optional tasks) and identifying any other ESOH requirements (e.g., ban on use of Ozone Depleting Substances or the limitations on use of hexavalent chrome)
- "Description/Comments:"** Use 2-3 paragraphs to describe the strategy for integrating ESOH into SE processes during Engineering and Manufacturing Development (EMD) and for update of the PESHE for MS-C; do not duplicate strategy description in PESHE; highlight primary ESOH issues (High or Serious risks or NEPA/EO 12114 compliance issues) for CDR



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Recommendations – Define SEP Table 4.6-1 Content

■ MS-C

- "Cognizant PMO Organization:" Update identified ESOH personnel integrated into the SE IPT / WG structure**
- "Certification:" Update list of applicable environment, safety, and occupational health certifications, to include safety boards (e.g., WSERB) and NEPA/EO 12114 compliance prior to exposing environment to known ESOH hazards during testing**
- "Documentation:" Attach PESHE, to include NEPA/EO 12114 Compliance Schedule, Hazard Tracking System, ESOH Risk Matrix, and required hazardous materials information (to include wastes and pollutants); avoid duplication of information about integration structure or strategy (described in other columns of ESOH row)**



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Conclusions

- **ESOH community response to AT&L initiatives to streamline Acquisition documentation to improve efficiency must be supportive and consistent with AT&L objectives**
- **20 Apr 2011 AT&L memo on Systems Engineering Plan (SEP) streamlining**
 - **PESHE now SEP attachment at MS-B and MS-C**
 - **ESOH design considerations summarized in SEP Table 4.1**
- **Opportunities to incorporate ESOH planning at MS-A and to focus PESHE on **ESOH data and NEPA/EO Compliance Schedule****

See the Poster Presentations
14408-Task 108 Hazardous Materials Management
14211 –Task 210 Environmental Hazard Analysis
14423-Balancing ESOH and Corrosion Control Requirements Cr+6



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Questions?





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BACK UP CHARTS



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Streamlining the SEP and PESHE

- **Acquisition Documentation Streamlining Task Force**
- **20 Apr 2011 SEP Streamlining Memo**
- **Strengths, Weaknesses, Opportunities, and Threats (SWOT)**
- **Recommendations**



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Acquisition Documentation Streamlining Task Force

- **Supports AT&L Memo “Better Buying Power: Guidance for Obtaining Greater Efficiency and Productivity in Defense Spending,” dated 14 Sep 2010**
 - **“Reducing non-productive processes and bureaucracy”**
- **Director, Acquisition Resources and Analysis (ARA) within AT&L led overall effort**
- **Document owners manage efforts for their documents based on Acquisition Documentation Streamlining Task Force recommendations**



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Acquisition Documentation Streamlining Task Force

■ Goals:

- Eliminate non-value added content in acquisition documentation and increase value to organizations / decision makers**
- Streamline or eliminate, where feasible, acquisition documents**
- Re-assess the value and utility of all required reports**



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Streamlining the SEP and PESHE

- Acquisition Documentation Streamlining Task Force
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- Strengths, Weaknesses, Opportunities, and Threats (SWOT)
- Recommendations



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Weaknesses

- **Does not address need for MS-A PESHE that could**
 - **Describe in detail how ESOH integrated into SE design development prior to Preliminary Design Review (PDR) that occurs prior to MS-B**
 - **Include an initial listing of ESOH hazards associated with proposed materiel solution**



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SWOT - Threats

- **Removal of PESHE summary from AS could be viewed as weakening the importance of ESOH in Acquisition**
- **Failure to effectively participate in updates of DAG and DoDI 5000.02 and subsequent changes to Service policy could further weaken how ESOH considerations are addressed during the acquisition process**
- **Failure to work with DASD(SE) during the update of the next SEP Preparation Guide could weaken or further confuse how ESOH considerations are addressed as part of SE process**



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SWOT - Threats

- **New Policy / Guidance only partially addresses expanding ESOH policy / execution gaps created by move toward early SE with increased prototyping and completion of 50% of design drawings during Technology Development between MS-A and MS-B**
- **Lack of clear and consistent guidance from DUSD(I&E) and the Services about what is expected regarding ESOH content of MS-A SEP could adversely impact effective inclusion of ESOH considerations in the early SE process leading up to PDR and MS-B**



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Recommendations – Define SEP Table 4.6-1 Content

■ MS-C, continued

- "Contractual Requirements:"** Include or attach language from current contracts and RFPs mandating use of MIL-STD-882E (and any optional tasks) and identifying any other ESOH requirements (e.g., ban on use of Ozone Depleting Substances or hexavalent chrome)
- "Description/Comments:"** Use 2-3 paragraphs to describe the strategy for integrating ESOH into SE processes during Production and Deployment; do not duplicate strategy description in PESHE; highlight primary ESOH issues for IOC and FOC



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Recommendations – PESHE Approval Authority

- **Option 1: CAE delegates PESHE approval to same office responsible for SEP approval (remains at CAE if CAE approves SEP)**
- **Can be no higher than SEP approval authority to avoid inconsistencies – attachment to SEP cannot be considered more important than the SEP itself**
- **Not advisable to delegate below the SEP approval authority because of need to keep NEPA/EO 12114 Compliance Schedule visible to decision makers**
- **Option 2: Leave at CAE, but this will cause difficulties if the CAE has delegated SEP approval authority**



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Conclusions

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See the Poster Presentations
14408-Task 108 Hazardous Materials Management
14211 –Task 210 Environmental Hazard Analysis
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Conclusions

- **Need IPT to develop DUSD(I&E)-approved common implementation guidance for DAG and Services to promulgate to their Acquisition Program Offices to**
- **Minimize potential adverse impacts of changes to ESOH integration efforts**
- **Maximize opportunity to improve former status quo**
- **Address MS-A requirements to integrate ESOH considerations into Technology Development phase (to support PDR and development of PESHE for MS-B)**